

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions or listings of claims for this application.

#### Listing of Claims:

Claims 1-10 (Cancelled).

11. (Original) A structure for creating chalcogenide integrated circuit devices, comprising:

a bottom layer;

a chalcogenide layer overlying the bottom layer;

a metal layer overlying the chalcogenide layer; and

a barrier layer on the metal layer, the barrier layer having a thickness such that the barrier layer is essentially transparent to irradiation for diffusing the metal layer into the chalcogenide layer.

12. (Original) The structure of claim 11, wherein the thin barrier material is a chalcogenide barrier layer.

13. (Original) The structure of claim 12, wherein the thin chalcogenide barrier and the chalcogenide layer are formed of the same material.

14. (Original) The structure of claim 12, wherein the same material is GeSe.

15. (Original) The structure of claim 13, wherein the metal layer includes silver.

Claims 16-107 (Cancelled).

108. (Original) The structure of claim 11 wherein the barrier layer is transparent to light.

109. (Original) The structure of claim 11 wherein the barrier layer comprises germanium-selenide.

110. (Original) The structure of claim 11 wherein the barrier layer reduces agglomeration from the metal layer.

111. (Original) The structure of claim 11 wherein the metal layer is formed to a thickness in a range of about 100Å to about 200Å.

112. (Original) The structure of claim 11 wherein the barrier layer is formed to a thickness in a range of about 20Å to about 50Å.

113. (Original) The structure of claim 11 wherein the barrier layer is formed to a thickness of about 30Å.

114. (Original) The structure of claim 11 wherein the chalcogenide layer is formed to a thickness in a range of about 500Å to about 1000Å.

115. (Original) The structure of claim 11 wherein the bottom layer comprises a conductive material.

Claims 116-145 (Cancelled).